APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/361,372	07/26/1999	JOEL M. SODERBERG	MS1-391US	5437

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EXAMINER
LUDWIG, MATTHEW J

ART UNIT	PAPER NUMBER
2178	

2178

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No. 09/361,372		Applicant(s) SODERBERG ET AL.	
	Examiner Matthew J Ludwig		Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *July 26, 1999* .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *July 26, 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   This action is responsive to communications: application filed 7/26/99

2.   Claims 1-33 are pending in the case. Claims 1,14,24, and 30 are independent claims.

Drawings

3.   This application has been filed with informal drawings, which are acceptable for

examination purposes only. Formal drawings will be required when the application is allowed.

Specification

4.   The disclosure is objected to because of the following informalities:

On page 8, "Exemplary Architecture" section of the specification, the parser 18 is

referenced to figure 2 does not match up with a number on the figure.

On page 15, "Request Processing Overview" the node factory 104 should be changed to

node factory 102 in order to match the node factory in figure 4.

5.   *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6.   Claims 13 & 23 are rejected under 35 U.S.C. 112, second paragraph, as being vague and

indefinite as to what steps would be included in the computer program. It is suggested that these

claims be rewritten as independent claims incorporating the specific steps which applicant

wishes to express the computer program to parse an Extensible Markup Language (XML) data

stream

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 1-4, 10-13, 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over

of Hyman et al. U.S. Patent Number 6446256 B1 (filed on June 30, 1999) and further

view of Igor Lyubashevskiy, VT420 Parser, August 16, 1995

Regarding independent claim 1, Hyman discloses the following:

When an XML document has an associated schema, the parser will make sure the

document follows the rules of the schema (compared to *"receiving XML data stream and*

evaluating the XML data stream against one or more of the rules for individual elements

contained in the XML data stream") (see column 7, lines 1-44)

Hyman does not disclose "disregarding associated portions of the XML data stream if

any of the rules are violated".

However, Hyman teaches if the document does not follow rules established by the

schema, an error occurs (compared to **"disregarding associated portions of the XML data**

stream") (See column 8, lines 25-35)

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have combined the receiving, associating, and evaluating a data stream of Hyman

and disregard associated portions of the XML data stream, which in turn would have streamlined

the parsing activities. (See column 8, lines 20-45)

Hyman does not disclose, "defining a plurality of states, which are associated with individual elements of an XML data stream".

However, Lyubashevskiy discloses a parser implemented as a finite state machine that preserves its state in between calls. The parser could be used with Microsoft windows and various markup languages. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have implemented the finite state machine of Lyubashevskiy to define a plurality of states and associate these states with individual elements of an XML data stream into the above mentioned parsing method of Hyman in order to provide a more efficient schema. (Pages 1 & 2)

In reference to claim 2, Hyman discloses an XML document, which has an associated schema. The parser will make sure that the document follows the rules of the schema. (See column 8, lines 25-30)

In reference to claim 3, Lyubashevskiy discloses the parser's adaptability and portability. For each of the five syntaxes the parser uses a separate table, which defines the commands and allows for the setting of the defaults. This reference does not teach defining one or more schema modules that are configured to track one or more states of the XML data stream; however, using a schema module to facilitate a modification of the architectural composition and tailor the parsing activities for speed and efficiency, as described in Lyubashevskiy's 'VT420 Parser' would have been obvious to one of ordinary skill in the art at the time the invention was made. (Pages 1 & 2)

In reference to claim 4, the limitations of this claim are taught by the methods of claim 3 above and are rejected under the same rationale.

In reference to claims 10 & 11, Hyman discloses an XML document that has an associated schema. This parser will make sure that the document follows the rules of the schema. Hyman does not explicitly teach rules that relate directly to elements and element types; however, it was well known in the art that elements would have been included in parsed XML documents. (See column 8, lines 25-30)

In reference to claim 12, Hyman disclose if a document does not follow rules established by the schema, an error occurs. Hyman describes an event that takes place after a rule established by a schema is violated. However, he does not explicitly teach disregarding an element that violates an established schema rule. It would have been obvious to combine the schema rules of Hyman and disregard associated portions of the data stream, which would streamline parsing activities. (See column 6, lines 55-65)

In reference to claim 13, it is referring to the computer program for the carrying out the method of claim 1 and is rejected under the same rationale.

Regarding independent claim 30,

Hyman discloses an XML document, which has an associated schema. The parser will make sure the document follows the rules established by the schema (compared to *"collection of schema modules"*) (See column 8, lines 24-33)

Hyman does not disclose associating a plurality of states with each schema module.

However, Lyubashevskiy discloses a parser, which has been implemented as a finite state machine and preserves its state between the calls. On each call the parser is presented with a fragment of the data stream (compared to **"a plurality of states associated with each schema module"**) (See pages 1 & 2)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Lyubashevskiy's finite state machine into Hyman to define each schema module in terms of one or more states and efficiently apply the rules associated with each state to the XML data stream received.

In reference to claim 31, Lyubashevskiy discloses a parser used to advantageously employ schemas within the invention. When an XML document has an associated schema, the parser will verify the document follows rules defined by the schema. The invention also discloses the existence of various well-known protocols, such as TCP/IP, "ETHERNET", FTP, HTTP. The system can be operated in a client-server configuration with any of these above-mentioned protocols. (See column 8, lines 24-32 & column 5, lines 57-62)

9.   Claims 5-9, 32, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hyman and Lyubashevskiy as applied to claim 1 and 30 above, and further in view of Fredj Dridi & Gustaf Neumann's 'How to implement Web based Groupware Systems based on WebDAV, June 18, 1999.

In reference to claim 5, the rejection of independent claim 1 above is incorporated herein. Hyman and Lyubashevskiy do not teach WebDAV request types. However, Dridi & Neumann's 'How to implement Web-based Groupware Systems' discloses WebDAV as a standard infrastructure for asynchronous collaborative authoring across the Internet in order to turn the Web into a collaborative environment. The core features of WebDAV are metadata management, namespace management, collections, overwrite prevention, version management, and access control. This WebDAV reference does not disclose using WebDAV methods for use

with XML data streams; however, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to use WebDAV request types with XML data streams and

other markup languages to provide a structured set of authoring operations. (See pages 2 & 3)

In reference to claim 6-9, the following claims refer to different WebDAV request

types. WebDAV request types encompass the various web extensions previously mentioned in

claim 5. The core features of WebDAV are metadata management, namespace management,

collections, overwrite prevention, version management, and access control. It would have been

obvious to one of ordinary skill in the art to incorporate PROPFIND, PROPPATCH, SEARCH,

LOCK, and UNLOCK requests using WebDAV method to improve the schema modules

associated with XML data streams. Thus claims 6-9 are rejected under the same rationale.

In reference to claim 32 & 33, the rejection of independent claim 30 is incorporated

herein. Hyman, and Lyubashevskiy do not teach WebDAV request types. However, Dridi &

Neumann's 'How to implement Web-based Groupware Systems' discloses WebDAV as a

standard infrastructure for asynchronous collaborative authoring across the Internet in order to

turn the Web into a collaborative environment. The core features of WebDAV are metadata

management, namespace management, collections, overwrite prevention, version management,

and access control. This WebDAV reference does not disclose using WebDAV methods for use

with XML data streams and parsing systems; however, using WebDAV request types with XML

data streams and other markup languages to provide a coherent set of authoring operations would

have been obvious to one of ordinary skill in the art at the time the invention was made. (See

pages 2 & 3)

10.   Claims 14, 17, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hyman

et al. U.S. Patent Number 6446256 B1 (filed on June 30, 1999)

Regarding independent claim 14, Hyman discloses the following:

Advantageously employing schemas within the invention and when an XML document

has an associated schema, the parser will make sure that the document follows the rules of the

schema. The invention also discloses the existence of various well-known protocols, such as

TCP/IP, "ETHERNET", FTP, HTTP. Hyman states the system can be operated in a client-server

configuration (compare to *defining a schema module that is associated with an HTTP request

type and evaluating an XML data stream with the schema module*). (See column 8, lines 24-32

& column 5, lines 57-62)

Hyman does not teach "disregarding a portion of the XML data stream if it does not

conform to the given schema"

However, Hyman teaches if the document does not follow rules established by the

schema, an error occurs (compared to **"disregarding associated portions of the XML data

stream"**) (See column 8, lines 25-35)

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have combined the receiving, associating, and evaluating a data stream of Hyman

and disregard associated portions of the XML data stream, which in turn would have streamlined

the parsing activities. (See column 8, lines 20-45)

In reference to claim 17, Hyman teaches if the document does not follow rules

established by the schema, an error occurs. (See column 8, lines 25-35)

In reference to claim 23, it is referring to the computer program for the carrying out the method of claim 14 and is rejected under the same rationale.

11.   Claims 15 & 16 are rejected under 35 U.S.C 103(a) as being unpatentable over Hyman as applied to claim 14 above, and further in view of Graham et al. U.S. Patent Number 6411974 B1 (filed on Feb. 4, 1998)

In reference to claim 15, the rejection of independent claim 14 is incorporated herein, and in addition; Hyman does not explicitly teach defining a plurality of schema modules associated with different HTTP requests. Graham discloses data structures, which comprise an opening module for textual streams and an extraction module for extracting the desired contents from textual streams. Graham does not teach defining a plurality of schema modules associated with different HTTP request types; however, it was well known in the art to use data structures to form modules, which could have been used to comprise schema modules associated with HTTP request types. Thus, having a plurality of schema modules would have been obvious to one of ordinary skill in the art at the time the invention was made. (See column 2, lines 50-60)

In reference to claim 16, Graham discloses an extraction module for extracting the desired contents. He does not explicitly disclose determining whether the extraction module resolves whether there are unauthorized elements that appear in a client's request; however, the extraction module of Graham, which was used for removing the desired contents from the textual streams would have been a sufficient module for detecting unauthorized elements appearing in a client's request. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Graham's extraction module to determine

whether there are any unauthorized elements that appear in a client's request. (See column 2,

lines 53-55)

12.   Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hyman as

applied to claim 14 above, and further in view of Fred Dridi & Gustaf Neumann's 'How to

implement Web based Groupware Systems based on WebDAV, June 18, 1999, herein after

referred to as Dridi.

In reference to claim 18-22, the rejection of independent claim 14 above is incorporated

herein. Hyman does not teach WebDAV request types. However, Dridi discloses WebDAV as a

standard infrastructure for asynchronous collaborative authoring across the Internet in order to

turn the Web into a collaborative environment. The core features of WebDAV are metadata

management, namespace management, collections, overwrite prevention, version management,

and access control. This WebDAV reference does not explicitly disclose using WebDAV

methods for use with XML data streams and parsing systems; however, using WebDAV request

types with markup languages to provide a coherent set of authoring operations was well known

in the art at the time the invention was made. Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to combine the well known WebDAV

request types taught by Dridi to form request types associated with XML data streams for a more

efficient application environment. (See pages 2 & 3)

13.   Claims 24-27, & 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hyman in view of the Document Object Model (DOM) Level 2 Specification, W3C Working

draft, July 19, 1999

Regarding independent claim 24, Hyman discloses the following:

The set of parse rules tells the parse stream process how to extract the desired contents

from a particular type of textual stream (compared to *"a parser configured to receive an XML*

data stream") (See column 7, lines 1-44)

Hyman does not explicitly teach the use of a node factory, which is communicatively

associated with the parser.

However, the Document Object Module, Level 2 Specification discloses node iterators,

which are used to step through a set of nodes. The set of nodes to be iterated is determined by the

factory that creates the interface. (compared to **"a node factory communicatively associated**

with the parser") page 120

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified the node iterator as taught by The Document Object

Module, which provides equivalent processes as the node factory, and associate this node factory

with the parser configured to receive an XML data stream and efficiently build the nodes

characterized by the data stream.

In reference to claim 25, Hyman discloses a document and an associated schema. The

parser assures the document follows the rules of the schema. Hyman makes no mention of

multiple schema modules; however it was well known in the art to include multiple schemas in

accordance with different mark-up languages. It would have been obvious to one of ordinary

skill in the art to combine the schema taught by Hyman with other multiple schema modules

being associated with a different known schema for a more efficient parsing arrangement. (See

column 8, lines 24-27)

In reference to claim 26, Hyman discloses the existence of well-known protocols, such

as TCP/IP, "ETHERNET", FTP, HTTP and the like, which are presumed. He states the system

can be operated in a client-server configuration. (See column 5, lines 57-61)

In reference to claim 27, the limitations of this claim are taught in claims 25 and are

rejected under the same rationale.

In reference to claim 29, Hyman teaches if the document does not follow rules

established by the schema, an error occurs. (See column 8, lines 25-35)

14.   Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hyman in view

of the Document Object Model (DOM) Level 2 Specification, W3C Working draft, July 19,

1999 and further view of Dridi

In reference to claim 28, the rejection of independent claim 24 above is incorporated

herein. Hyman and DOM do not teach WebDAV request types. Dridi discloses WebDAV as a

standard infrastructure for asynchronous collaborative authoring across the Internet in order to

turn the Web into a collaborative environment. The core features of WebDAV are metadata

management, namespace management, collections, overwrite prevention, version management,

and access control. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the inventions of Hyman and DOM and provide requests with

WebDAV methods for a well-organized parsing system. (See pages 2 & 3)

Conclusion

15.   The prior art made of record and not relied upon is considered pertinent to applicant's
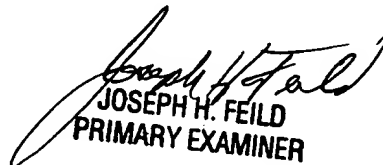
disclosure.

       Meltzer   US Patent 6,226,675 4/1/2001 (filed 10/16/98)

       Mutschler   US Patent 6,289,501 9/11/2001 (filed 3/31/99)

       Baisley   US Patent 6,408,311 6/18/2002 (filed 6/30/99)

       Cseri,   Building XML Parsers for Microsoft IE4,   10/2/99

16.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew J. Ludwig whose telephone number is 703-305-8043.

The examiner can normally be reached on Monday-Friday from 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-746-7239 for regular

communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-4700.

JOSEPH H. FEILD
PRIMARY EXAMINER

ML

October 21, 2002